

AUG 28 2006

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Remarks

This Amendment is in response to the Office Action dated March 31, 2006. The Office Action rejected claims 1-4 under 35 USC § 103(a) as being unpatentable for being obvious over US Patent Application No. 2001/0003672A1 (hereinafter Inoue) in view of US 5,352,277 (hereinafter Sasaki). The Office Action also rejected claims 1-5 under 35 USC § 103(a) as being unpatentable for being obvious over Sasaki in view of Inoue.

Accompanying this Response is a supplemental declaration and supplemental data (consisting of table C and tables 1-12) which proves that the claims are not obvious over the cited art. The Office Action stated that the declaration submitted on 04/25/2005 did demonstrate that some unexpected synergistic results occur in Applicant's claimed composition. (Office Action, Pages 2 and 3). However, even though an unexpected synergistic result renders a combination non-obvious, the Office Action rejected claims 1-5 because the scope of the claims exceeded the bounds of the data previously submitted on 04/25/2006. As a result, to demonstrate the fact that the unexpected synergistic results are present for the entire scope of the claims, Applicant has submitted the supplemental declaration.

To be representative of the full scope of the claims, a data sample must provide a sufficient number of data points within and beyond the claimed range. *In re Hill* 284 F.2d 955, 128 USPQ 197 (CCPA 1960). The supplemental declaration provides data illustrating the synergistic effects for a broad proportion of the claimed scope and affirmatively states that the provided data can be extrapolated to the full scope of the claims. Because the previously provided data also provides examples outside of the claimed range and the newly provided data provides voluminous data points within the claimed scope, ***the combined provided data is representative of the entire scope of the claims.***

Specifically, the instant data prove the full scope of the claims by controlling for each of the four variables in claim 1 ((1) molecular weight of HEC, (2) weight% of HEC, (3) weight% of PEO, and (4) molecular weight of PEO) at enough values to be representative of the full scope of the ranges described in the claims. (5) In addition, the sworn declaration explicitly states that for all of the alkaline compounds and compositions in the Specification, these same unexpected results will occur. The following summary describes the data contained in the accompanying declaration in greater detail:

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- (1) All compositions having HEC within the claimed molecular weight range show unexpected results.

Tables 1, 2, and 3 provide representative data demonstrating that for all compositions in which HEC has a molecular weight of between 300,000 and 3,000,000 as claimed in claim 1, unexpected results occur. Table 1 controls for HEC's molecular weight at the low end of the claimed range (300,000), table 2 at a value in the middle of the claimed range (1,200,000), and table 3 at a value representative of the high end of the claimed range (1,800,000). These three tables together show that for all of the claimed values of HEC's molecular weight in base claim 1, where the HEC weight percentage varies from between 0.01% to 3% (with the representative range of 0.05% to 2%) the composition will display unexpected results. Similarly it shows that for the claimed range of the molecular weight of HEC, in all circumstances where the PEO has a molecular weight of between 30,000 and 50,000,000 (with the representative sample of 80,000 to 8,000,000) the composition will display unexpected results. Lastly it also shows that for the claimed range of HEC's molecular weight, in all compositions where PEO has a weight percentage of 0.005% to 0.5%, unexpected results will occur.

- (2) All compositions having HEC within the claimed weight percentage range show unexpected results.

Tables 4, 5, and 6 provide representative data demonstrating that for all compositions in which HEC has a weight percentage of between 0.01% and 3% as claimed in claim 1, unexpected results occur. Table 4 controls for HEC's weight percentage at a value representative of the low end of the claimed range (0.05%), table 5 at a value in the middle of the claimed range (0.25%), and table 6 at a value representative of the high end of the claimed range (2%). These three tables together show that for all of the claimed values of HEC's weight percentage in base claim 1, where the HEC's molecular weight varies from between 300,000 to 3,000,000 (with the representative range of 300,000 to 1,800,000) the composition will display unexpected results. Similarly it shows that for the claimed range of the weight percentage of HEC, in all circumstances where the PEO has a molecular weight of between 30,000 and 50,000,000 (with the representative sample of 80,000 to 8,000,000) the composition will display unexpected results. Lastly it also shows that for the claimed range of HEC's weight

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percentage, in all compositions where PEO has a weight percentage of 0.005% to 0.5%, unexpected results will occur.

- (3) **All compositions having PEO within the claimed a molecular weight range show unexpected results.**

Tables 7, 8, and 9 provide representative data demonstrating for all solutions in which PEO has a molecular weight of between 30,000 and 50,000,000 as claimed in claim 1, unexpected results occur. Table 7 controls for PEO's molecular weight at a value representative of the low end of the claimed range (80,000), table 8 at a value in the middle of the claimed range (400,000), and table 9 at a value representative of the high end of the claimed range (8,000,000). These three tables together show that shows that for all of the claimed values of PEO's molecular weight in claim 1, where the HEC weight percentage varies from between 0.01% to 3% (with the representative range of 0.05% to 2%) the composition will display unexpected results. Similarly it shows that for the claimed range of the molecular weight of PEO, in all circumstances where the HEC has a molecular weight of between 300,000 and 3,000,000 (with the representative sample of 300,000 to 1,800,000) the composition will display unexpected results. Lastly it also shows that for the claimed range of PEO's molecular weight, in all compositions where PEO has a weight percentage of 0.005% to 0.5%, unexpected results will occur.

- (4) **All compositions having PEO within the claimed weight percentage range show unexpected results.**

Tables 10, 11, and 12 provide representative data demonstrating that for all compositions in which PEO has a weight percentage of between 0.005% and 0.5% as claimed in claim 1, unexpected results occur. Table 10 controls for PEO's weight percentage the value at the low end of the claimed range (0.005%), table 11 at a value in the middle of the claimed range (0.1%), and table 12 at the value of the high end of the claimed range (0.5%). These three tables together show that shows that for all of the claimed values of PEO's weight percentage in claim 1, where the HEC's molecular weight varies from between 300,000 to 3,000,000 (with the representative range of 300,000 to 1,800,000) the composition will display unexpected results. Similarly it shows that for the claimed range of PEO's weight percentage, in all circumstances where the PEO has a molecular weight of between 30,000 and 50,000,000 (with the

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representative sample of 80,000 to 8,000,000) the composition will display unexpected results. Lastly it also shows that for the claimed range of PEO's weight percentage, in all compositions where PEO has a molecular weight of between 30,000 and 50,000,000 (with the representative range of 80,000 8,000,000), unexpected results will occur.

(5) All compositions having claimed alkaline compounds will show unexpected results.

The Office Action stated that although the declaration provided on 04/25/2005 stated that ammonium compounds having an alkaline weight percentage of 1.0% show unexpected results, this did not prove that all alkaline compounds as claimed in claim 1 would display the same results. The enclosed declaration states that the same unexpected results that occur with ammonium at 1.0% also occur with all of the other alkaline compounds mentioned in the specification. In addition, the declaration states that as mentioned in the specification, the unexpected results will occur with all weight percentages of such an alkaline compound.

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Conclusion

Based on at least the foregoing Remarks, Applicant respectfully submits that all of the claimed ranges in base claim 1 display unexpected results and are therefore non-obvious over the prior art and in condition for allowance. Withdrawal of the rejections against Claims 1-5 is requested. Favorable consideration and prompt allowance of these claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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Enclosure: Declaration, Supplemental Data of Tables A, B, C and 1-12

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